REMARKS

Please enter this Submission as part of the Request for Continued Examination (RCE) filed herewith under 37 CFR §1.114.

In response to the above-noted Office Action dated September 12, 2008, Applicants had submitted a reply filed on November 12, 2008. In an Advisory Action dated November 24, 2008, Applicants were notified that the amendments presented in Applicants' previous reply would not be entered for purposes of appeal.

For purposes of the present RCE, Applicants request entry of their previously-submitted unentered reply filed November 12, 2008, as instructed on the RCE Transmittal (PTO/SB/30). Additionally, Applicants have amended remaining independent claim 11 to specify that the sintering step occurs in a "subsequent high temperature excursion," as opposed to during the forming step. Support for this limitation can be found in Applicants' specification at [0010] (first and fourth sentences), [0022] (sixth sentence), and [0031] (third sentence).

The above amendments do not present new matter. Favorable reconsideration and allowance of remaining claims 11-15 and 17-20 are

respectfully requested in view of the following remarks.

Prior Art Rejections

Remaining claims 11, 15, and 17-20 are rejected as anticipated by U.S. Patent No. 6,492,038 to Rigney et al. (Rigney) under 35 USC §102, claims 11, 15, and 17-20 are rejected as anticipated by U.S. Patent No. 6,312,832 to Alperine et al. (Alperine) under 35 USC §102, and claims 12-14 are rejected as unpatentable under 35 USC §103 in view of Alperine and one or more of U.S. Patent No. 6,482,537 to Strangman et al. (Strangman), U.S. Patent No. 6,238,594 to Turpin et al. (Turpin), and U.S. Patent No. 6,299,971 to Maloney.

Rejection under 35 USC §102 based on Rigney

Independent claim 11 requires an intentional sintering step to "close at least some of the pores (32) to entrap the carbon-containing gas within the closed pores (32)." Rigney's "coating and method are particularly directed to inhibiting … sintering … in the TBC during high temperature excursions." (Emphasis added.) Column 2, lines 11-14. See also column 2, lines 64-66, and particularly column 3, lines 23-27:

> By sufficiently stabilizing the TBC microstructure and pinning grain boundaries with carbide and/or nitride precipitates, the component can be subsequently heated to temperatures in excess of 1200°C *without causing sintering* …. (Emphasis added.)

Therefore, Rigney's coating process does not involve sintering, and Rigney expressly teaches that a "subsequent high temperature excursion" would not cause sintering. Applicants therefore respectfully request withdrawal of the rejection under 35 USC §102(e) based on Rigney.

Rejection under 35 USC §102 based on Alperine

Under Section 2 on page 3 of the prior Office Action, the Examiner responded to Applicants' argument that "Alperine does teach a sintering operation to increase the entrapment of carbon-based gases" by stating that

> Alperine specifically teaches a barrier coating whereby carbon is **sintered** with oxides. As carbon dioxide is a well known byproduct of combustion reactions, the sintering of the carbon source will inherently produce a carbon containing gas, which will inherently entrap said gases in the barrier coating. (Original emphasis.)

However, the Examiner's reference to "carbon [being] sintered with oxides" is based on Alperine's fabrication of rods used as the evaporation source of

Alperine's coating process. Column 6, lines 15-29. Therefore, this teaching of Alperine has nothing to do with Alperine's deposited coating, and therefore is irrelevant to Applicants' claim of sintering a coating containing elemental carbon.

In view of the above, Applicants respectfully request withdrawal of the rejection under 35 USC §102 based on Alperine.

Rejections under 35 USC §103 based on Alperine

In view of the above arguments concerning the §102 rejection based on Alperine, Applicants believe that the §103 rejections based on Alperine are also overcome, as none of the secondary references (Maloney, Strangman, or Turpin) disclose or suggest forming a TBC that contains elemental carbon, and then sintering the TBC to entrap the elemental carbon and/or a carbon-containing gas. Therefore, Applicants also respectfully request withdrawal of the rejections under 35 USC §103 based on Alperine.

Closing

In view of the above, Applicants believe that the claims define patentable novelty over all the references, alone or in combination, of record.

It is therefore respectfully requested that this patent application be given favorable reconsideration.

Should the Examiner have any questions with respect to any matter now of record, Applicants' representative may be reached at (219) 462-4999.

Respectfully submitted,

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